

STUDIES IN THE SENECEONEAE (ASTERACEAE). II.

A NEW GENUS, NELSONIANTHUS

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The epiphytic habit is one requiring some specialization among Compositae and is very characteristic where it occurs in Neomirandea of the Eupatorieae and in certain tropical American species of Senecio. The described epiphytic species of Senecio form a distinctive and closely related group of much branched plants with ovate mostly entire leaves and distinct slender petioles. It is surprising to find in the herbarium under the name of one of these species, S. parasiticus Hemsl., an undescribed epiphytic member of the Senecioneae that is not at all closely related to the group.

The undescribed species from Mexico and Guatemala differs from Senecio parasiticus most obviously in the thinner remotely serrulate leaves and the rather abrupt terminal inflorescences and there is a greater resemblance to some species that have been placed in the terminales group of the genus Senecio. Actual relationship to the latter group is confirmed by the presence of a single fused stigmatic surface on each style branch and by the lack of any specially enlarged cells in the lower part of the anther collar. In S. parasiticus and its relatives there are two separate stigmatic lines on each style branch and the lower cells of the anther collar are specialized.

Among its relatives the new species is unique by its epiphytic habit. The species differs from the members of the more closely related terminales group by the lack of resin ducts in the stem, and the exothecial cells of the anther have thickenings only on the transverse walls. The exothecial cell character is less variable among the species with fused stigmatic surfaces, being seen thus far among the Mexican species only in the new species and in the genus Digitacalia Pippen. Although the epiphytic habit is the most obvious distinction of the species, it is the exothecial cells that provide the most convincing reason for the separate generic status that is adopted here.

The pith of the stems shows variation from completely hollow to closely chambered. Some stems have been seen filled with fungal hyphae which give the erroneous impression of solid pith. The interior of the receptacle is filled with a loose network of parenchyma which differs from the solid pith in the receptacles of Senecio parasiticus and its relatives.

Nelsonianthus epiphyticus H. Robinson & R.D. Brettell, gen. et sp. nov. Frutices epiphytici ca. 0.5-1.5 m alti pauce ramosi. Caules teretes sublaeves glabri; canales resiniferi corticei nulli. Folia alterna glabra longe petiolata, petiolis 3.0-3.5 cm longis, laminis ovatis 7.5-11.5 cm longis 5-7 cm latis remote serratis vel subserratis abaxialiter aliquantum glaucis, nervis lateralibus pinnatis paucis valde eucamptodromis. Inflorescentiae terminales aliquantum abruptae corymboso-paniculatae; pedicelli 0.5-1.0 cm longi parce hirsuti ad extremum multo bractiferi; bracteis minus linearibus. Capitula 1.3-1.5 cm longa 0.5-0.7 cm lata; squamae involucri 8 uniseriatae anguste oblongae ca. 10 mm longae 2 mm latae glabrae; receptacula plana spiculifera. Radii nulli; flores discorum ca. 10; corollae anguste infundibulares flavae 10-10.5 mm longae, lobis 2mm longis quater longioribus quam latioribus; thecae antherarum ca. 3.5 mm longae, cellulis exothecialibus breviter oblongis, solum parietibus transversis nodiferis. Achaenia glabra ca. 2.5 mm longa, costis ca. 10; carpopodia subcylindrica, cellulis 7-8 seriatis quadratis vel breviter oblongis. Pappus facile deciduus plerumque biseriatus; cellulis apicalibus non grandioribus. Grana pollinis 50 μ diam.

Type: GUATEMALA: Chimaltenango: Chichavac; alt. 2,400-2,700 m, December 20, 1933. Shrub, epiphytic on trees in old forest, the slender drooping stems 2-4 ft long. Ray and disk fls. yellow. A. F. Skutch 764 (Holotype US). Paratypes; GUATEMALA: Solola: Sierra Madre Mountains, Cerro Maria Tecum, 2-10 km. northwest of Los Encuentros, mountain forest area, alt. 2800-3400 m. December 7, 1963. Flowers yellow, epiphyte in mossy forest. L.O. Williams, A. Molina R., and T.P. Williams 25447 (US): Cut over forest between Maria Tecum and Los Encuentros, alt. 2800 m. November 29, 1969. Fls. yellow, on forest mossy bank. A. Molina R. and A.R. Molina 24982 (US): Mountains near Calel. alt. 11,000 ft. January 20, 1896. E.W. Nelson 3682 (US). MEXICO: Chiapas: Mt. Pacitar, December 31, 1936. E. Matuda 739 (US).